

Product datasheet for **TP726976**

DMP1 Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant Human Dentin Matrix Acidic Phosphoprotein 1/DMP-1 (C-6His)
Species:	Human
Expression cDNA Clone or AA Sequence:	Lys17-Tyr513
Tag:	C-His
Buffer:	Lyophilized from a 0.2 um filtered solution of 20mM PB, 150mM NaCl, pH 7.4.
Note:	Recombinant Human Dentin matrix protein 1 is produced by our Mammalian expression system and the target gene encoding Lys17-Tyr513 is expressed with a 6His tag at the C-terminus.
Storage:	Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Stability:	12 months from date of despatch
Locus ID:	1758
UniProt ID:	Q13316
Summary:	Dentin Matrix Acidic Phosphoprotein 1 (DMP-1) is an extracellular matrix protein and a member of the small integrin binding ligand N-linked glycoprotein family. DMP-1 is expressed in teeth particularly in odontoblast, ameloblast, and cementoblast. DMP-1 is critical for proper mineralization of bone and dentin. DMP-1 may have a dual function during osteoblast differentiation. In the nucleus of undifferentiated osteoblasts, the unphosphorylated form of DMP-1 acts as a transcriptional component for activation of osteoblast-specific genes like osteocalcin. During the osteoblast to osteocyte transition phase, DMP-1 is phosphorylated and exported into the extracellular matrix, where it regulates nucleation of hydroxyapatite. DMP-1 mutations have also been shown to cause rickets hypophosphatemic autosomal recessive type 1 (ARHR1).



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